inductive automation®

Ignition! Fundamentals

The Unlimited Platform for SCADA
and so much more

Presenters

Kent Melville

Director of Sales Engineering

Inductive Automation

Today's Agenda

- Inductive Automation Company Background
- Industries and Customers
- Ignition Overview & Features
- Q&A

About Inductive Automation

How We Got Started:

Inductive Automation was founded in 2003 by Steve Hechtman, who worked for 25 years as a control system integrator and grew frustrated with the solutions available.

Through the cross-pollination of IT and SCADA technologies Steve and his team developed and IT product for the SCADA world that redefines the category. The result is Ignition: The New SCADA

About Inductive Automation

Mission Statement:

Our mission is to create industrial software that empowers our customers to swiftly turn great ideas into reality by removing all technological and economic obstacles.

The Growth of Ignition

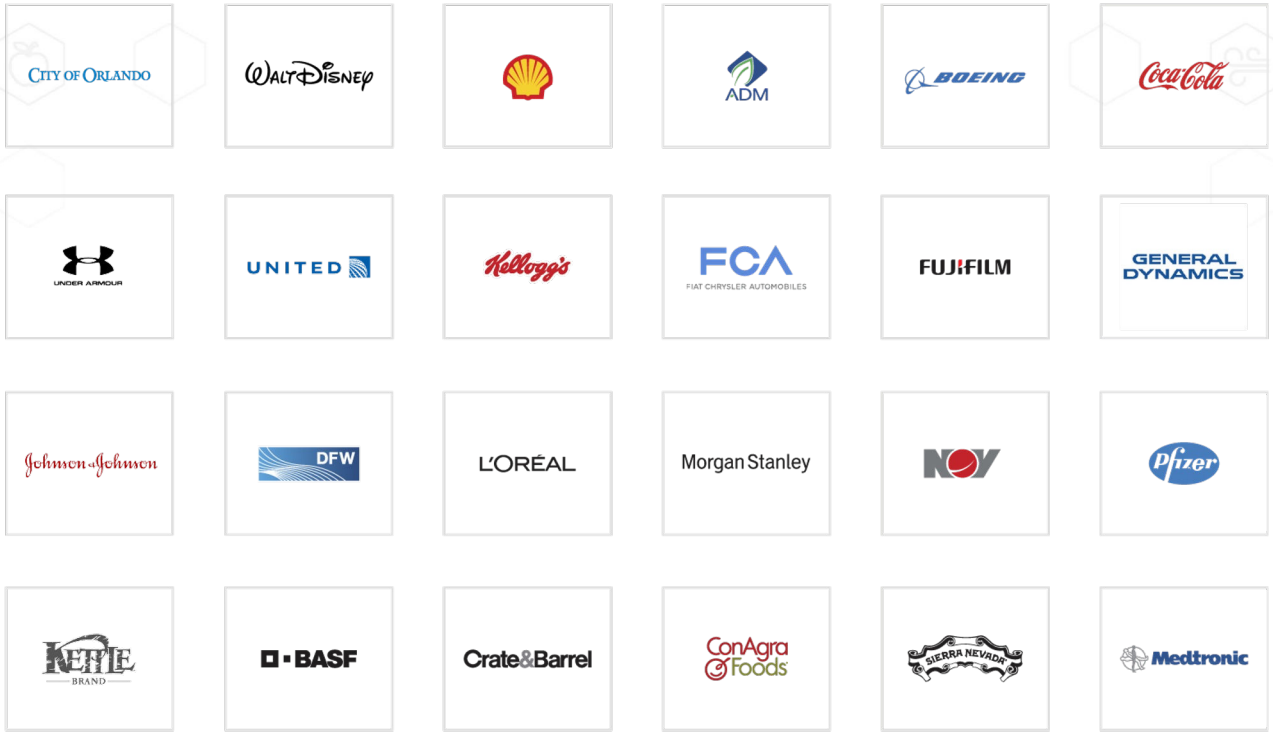
Inductive Automation by the numbers

20+
Years in the industry

57%
Fortune 100 companies using Ignition®

100+
Countries with Ignition installations

Who Uses Ignition?



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Inductive Automation
Ignition Distributors

inductive
automation
Australia

Our Integrator Program

Numerous Benefits for Integrators

- Strong partnership
- Tech support is always free
- Discount pricing
- No up-front costs
- No obligations
- Certification program
- Joint marketing opportunities

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REGISTERED INTEGRATOR

inductive automation
CERTIFIED INTEGRATOR

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CERTIFIED GOLD INTEGRATOR

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CERTIFIED PREMIER INTEGRATOR

inductiveuniversity.com

Ignition User Manual also available at:
docs.inductiveautomation.com

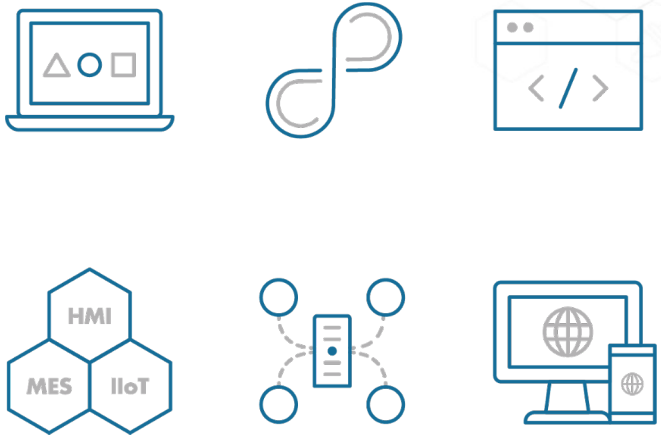
Ignition: Industrial Application Platform

The world's first database-centric, 100% cross-platform, web-deployed industrial application platform for HMI/SCADA.

Ignition: Industrial Application Platform

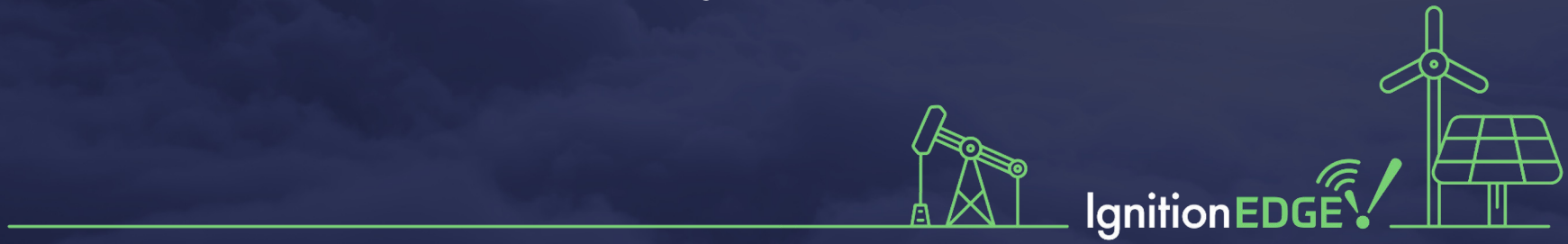
One Universal Platform for SCADA, MES & IIoT

- Unlimited licensing model
- Cross-platform compatibility
- Based on IT-standard technologies
- Scalable server-client architecture
- Web-managed
- Web-launched on desktop or mobile
- Modular configurability



aws marketplace

Microsoft Azure



Ignition Software Stack

USER-CREATED APPLICATION LAYER

SCADA, HMI, MES, IIoT

THIRD-PARTY MODULE LAYER

MES

- OEE Downtime
- Track & Trace
- SPC
- Recipe/Changeover
- Web Services
- Instrument Interface

MQTT

- Engine
- Distributor
- Transmission
- Injectors
- Remote Manager

CORE MODULE LAYER

PLATFORM LAYER

Ignition by inductive automation Platform

- OPC UA Client
- Database
- Web Server
- System Logging
- Licensing
- Unified Development Environment
- Auditing
- Authentication
- Store & Forward
- Alarming Core Functionality
- Database Connectivity
- Real-Time Tag Database
- Module API
- Redundancy

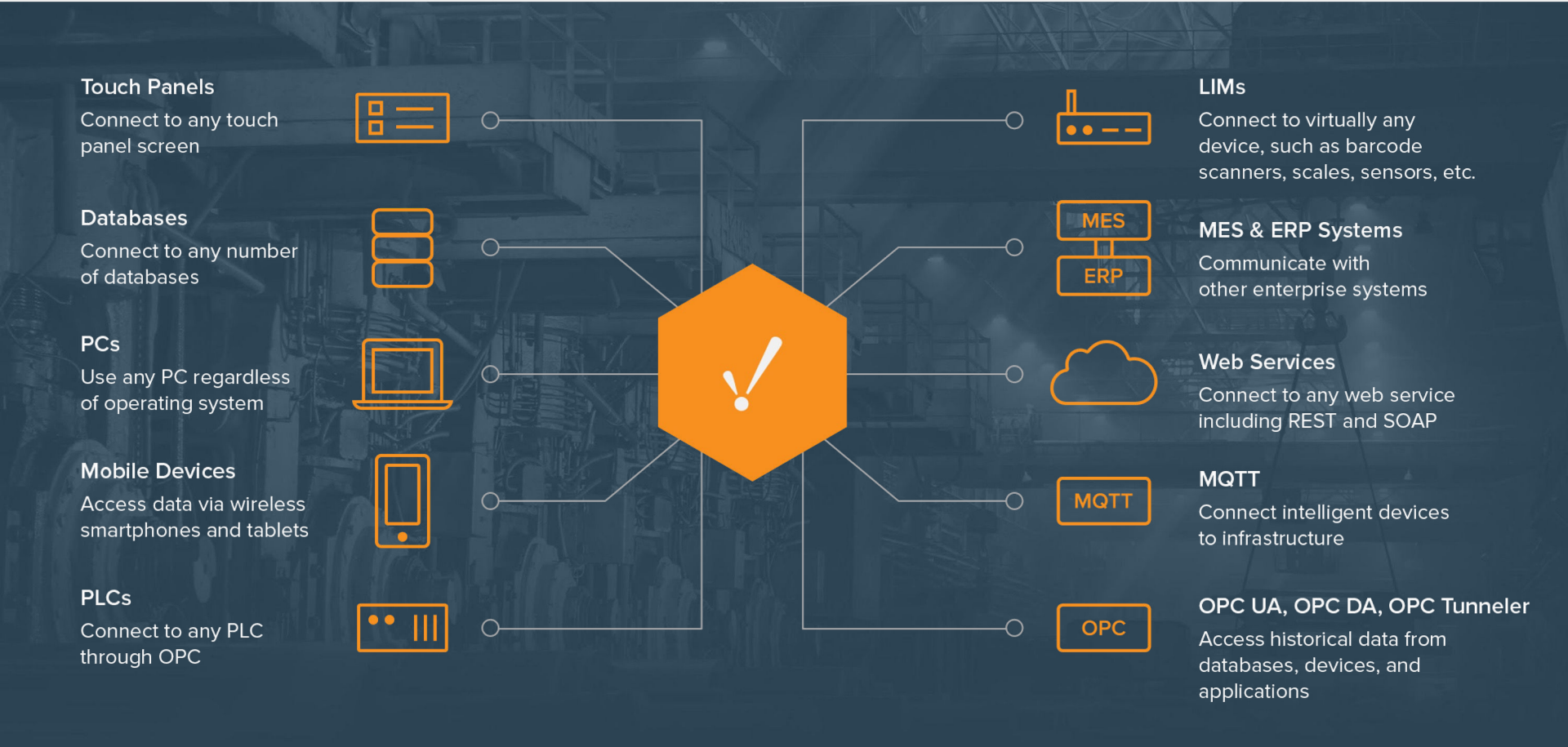
OS LAYER

Windows (Any Newer Version)

Linux

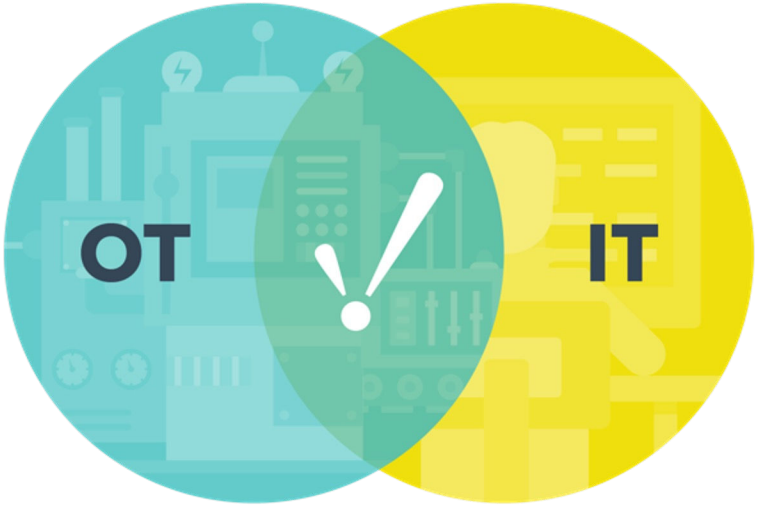
OS X

Ignition: The Ultimate in Data Acquisition



Reduce OT-IT Friction

OPERATIONAL TECHNOLOGY



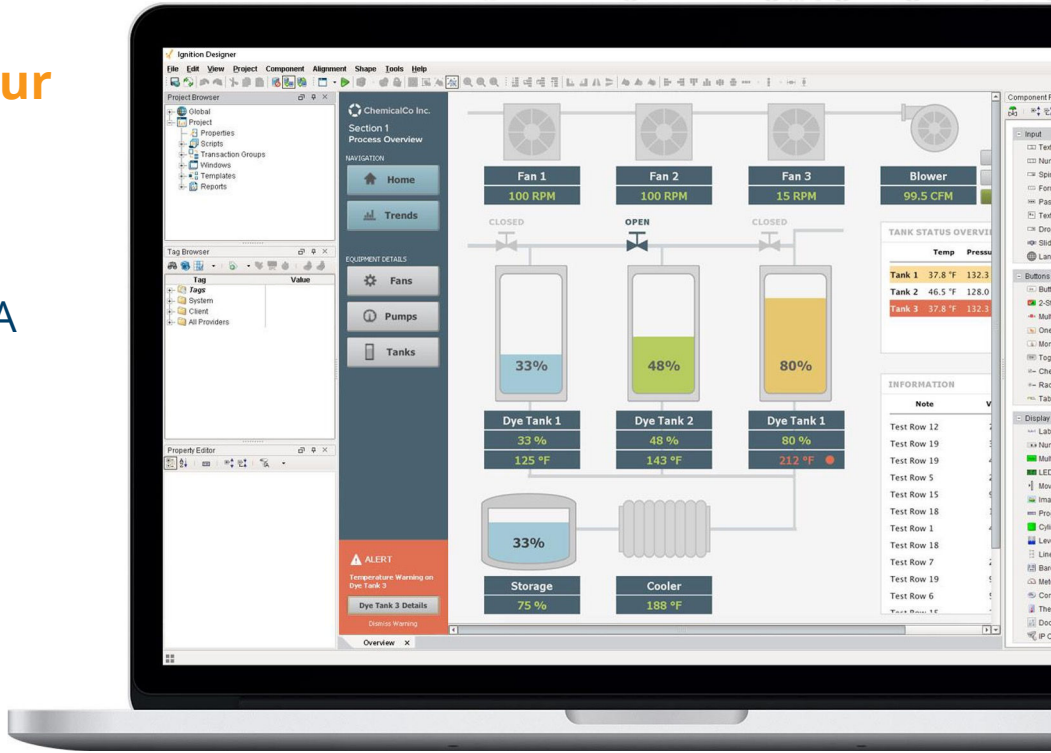
INFORMATION TECHNOLOGY

What Does Ignition Do?

HMI / SCADA Solutions

See, Control, and Analyze All Your Data, All in One Place

- Unlimited clients
- Rapidly develop any kind of SCADA project
- Powerful visualization tools
- SCADA alarming
- Industrial historian
- Dynamic reporting
- Mobile access



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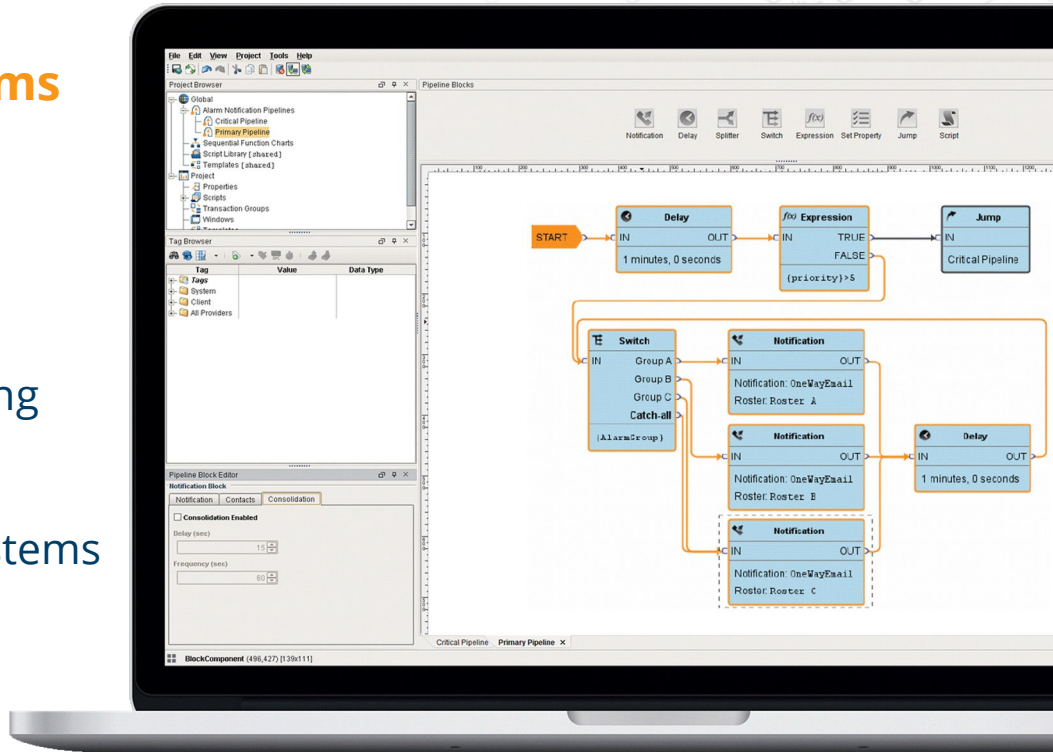
Alarming Solutions

Build Advanced Alarming Systems with Drag-and-Drop Ease

- Easily connect to your data
- Simple alarm management
- Powerful alarm analysis & reporting
- Dynamic customizable alarms
- Develop advanced notification systems with ease
- Reliable 2-way notification
- SQL support



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Reporting Solutions

Easily Create Dynamic, Database-Driven Industrial Reports

- Connect to all of your data
- Combine all your data togethe
- Drag and drop report designer
- Easily setup automatic reporting
- Export to any format

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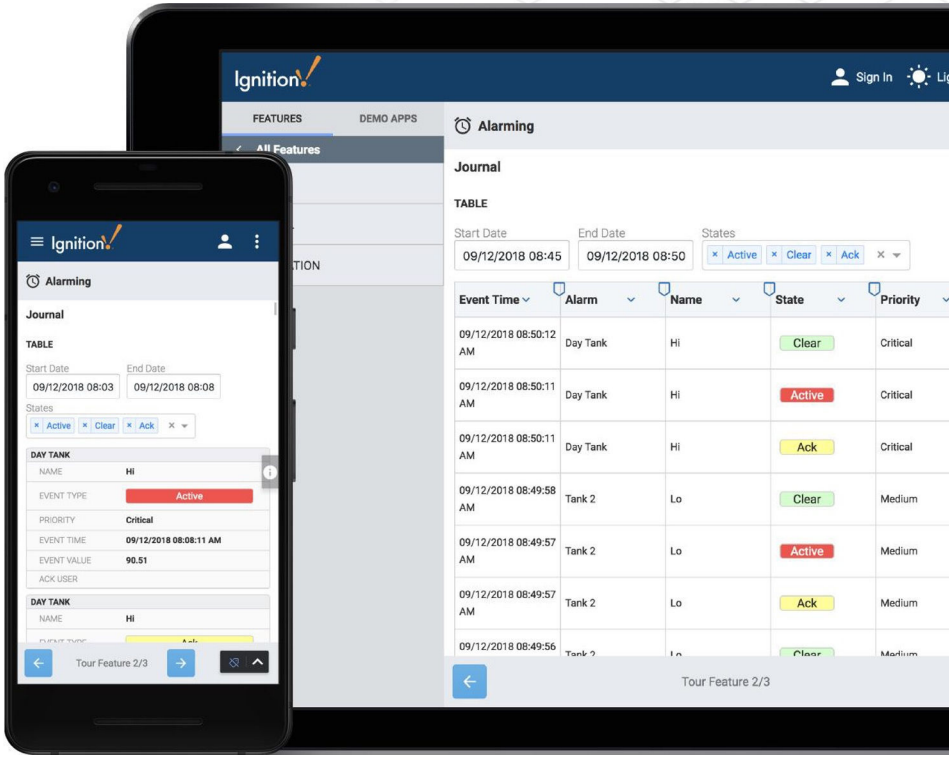
Mobile Solutions

Add the Magic of Mobile to Your Applications

- Connect to all of your data
- Combine all your data together
- Drag and drop designer
- Use any browser
- Mobile-responsive
- Native Apps – Harness GPS, camera, accelerometer



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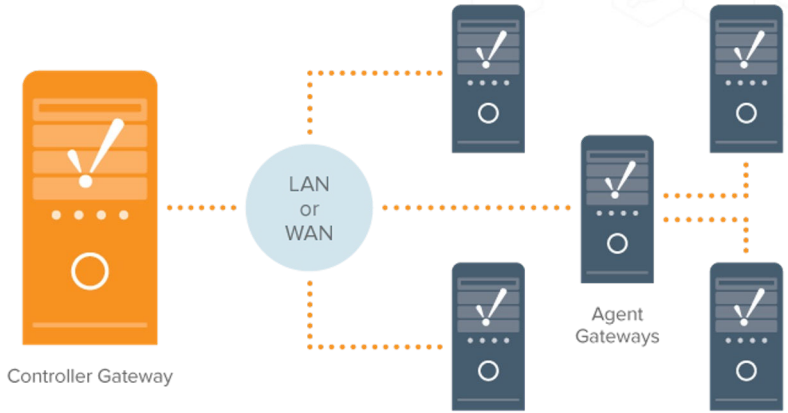
Enterprise Administration

Enhance the scalability of your Ignition system with the EAM Module

- Control and monitor multiple Gateways from a central Gateway
- Schedule, automate, and track maintenance tasks from one central location
- Agent Gateway health indicators can quickly monitor for abnormal health in an agent
- Remote project and license management

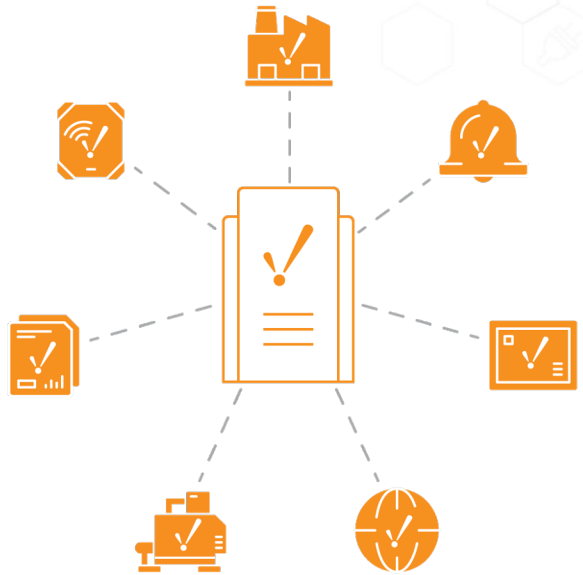


IIoT Solutions

Make Your Data More Accessible, Powerful, and Efficient with MQTT

- Decouple devices and applications
- Streamline your data pipeline
- Automatic tag creation and health metrics
- Edge-of-network solutions
- On-premise solutions
- Cloud solutions
- IIoT dashboards

Cirrus Link SOLUTIONS



MES Solutions

Tools for Tracking Production, Eliminating Downtime, and More

- Connect to all of your data
- Improve efficiency and productivity
- Flexible ERP connectivity
- OEE / Downtime
- Track & Trace
- Recipe / Changeover
- Statistical Process Control

sepasoft

Database Solutions

Native support for SQL databases to build database applications

- Connect to any SQL database
- Convert Access/Excel files to a centralized application
- Powerful querying and visualization
- Stored procedure support
- Drag and drop query builder

Transaction Manager

Integrate PLCs and SQL Databases

- Connect to PLCs/devices through OPC-UA or MQTT
- Connect to any SQL database
- Log contextual data easily
- Move data bidirectionally
- Synchronize PLCs and databases
- Build recipe & batching systems
- Sequence your process

Protocol Conversion / Cloud Injection

Build on trusted known standards

- OPC-UA & MQTT
- Amazon AWS & Microsoft Azure support
- Database connectivity
- Web service connectivity (REST, SOAP)
- Easily move data around
- Powerful expression language
- Powerful scripting language
- Runs on any OS

The Bottom Line

=

Unlimited Tags

Unlimited Clients

Unlimited Screens

Unlimited Users

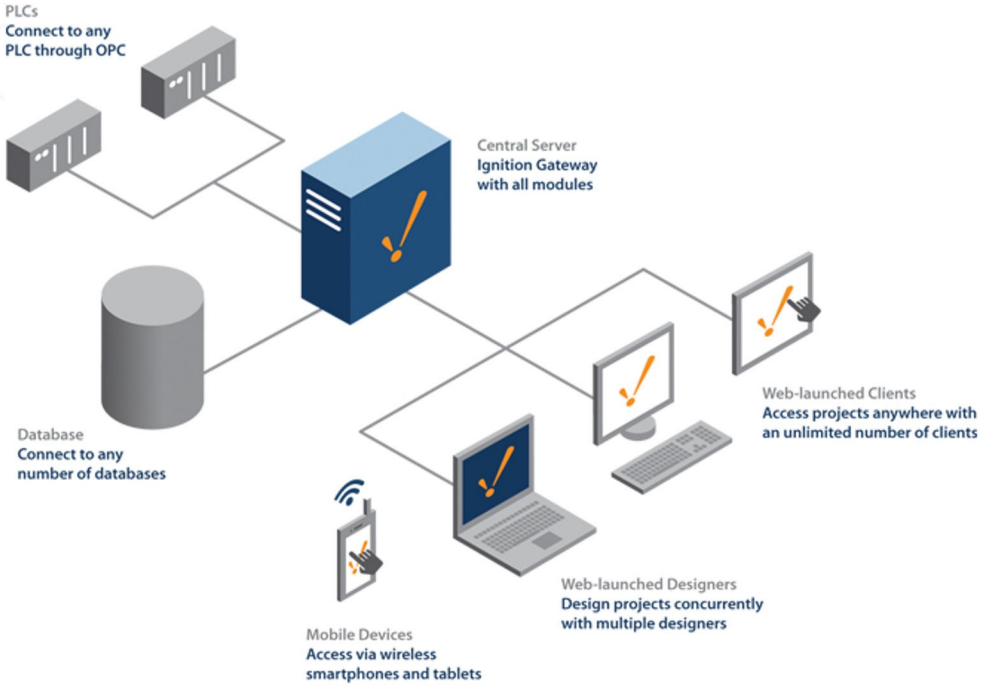
Unlimited Connections

Unlimited Devices

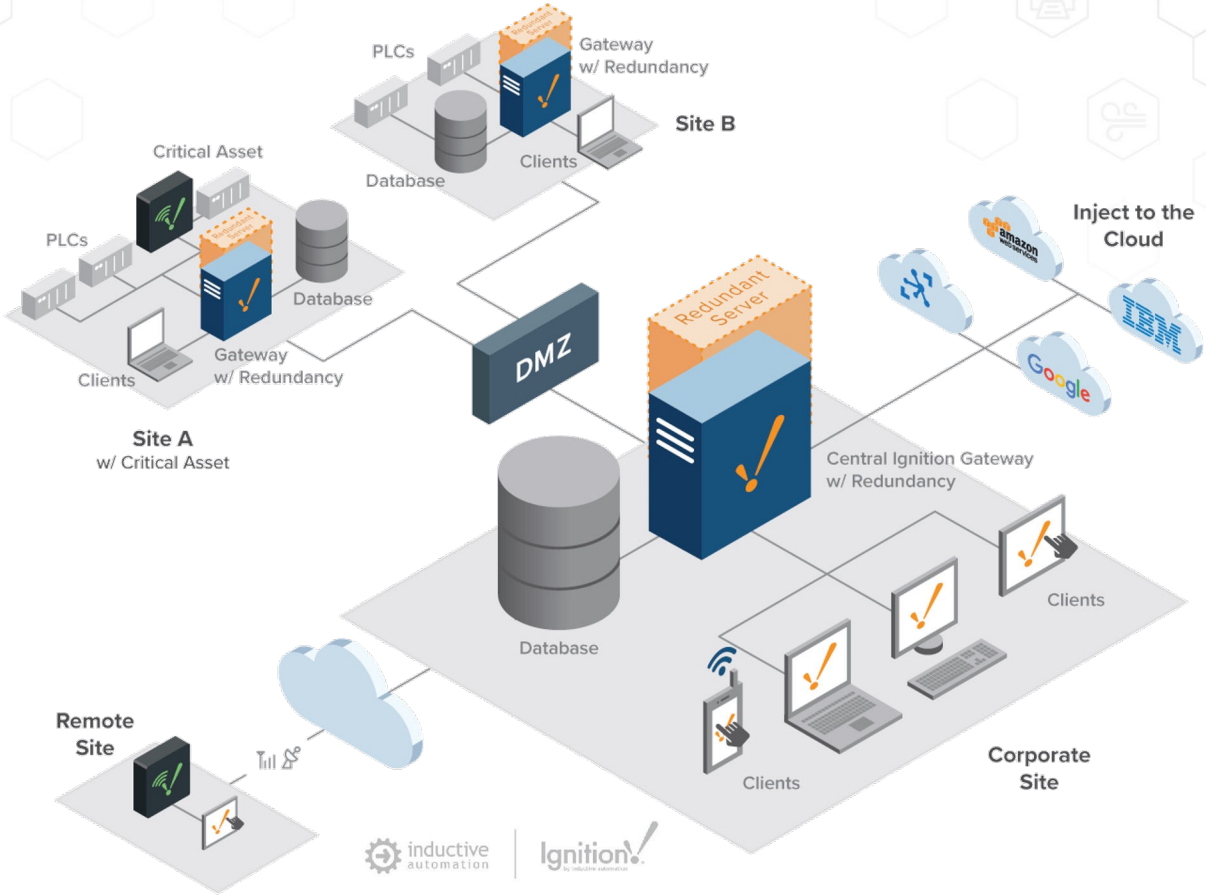
No surprises.
Pay One Price per Server License

Get Everything You Need!

Standard Architecture



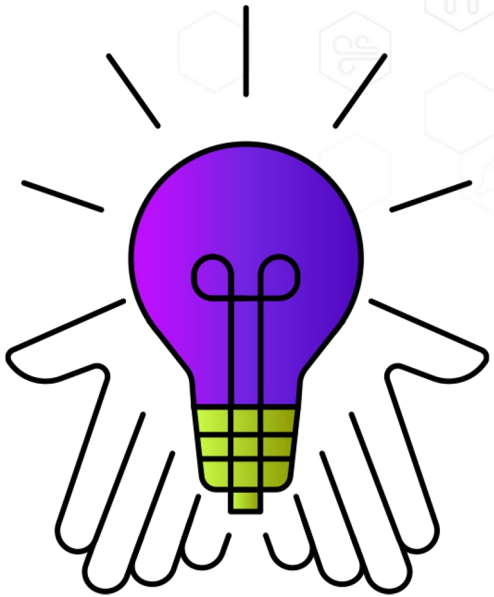
Enterprise Architecture



What Digital Transformation is Really About

Digital Transformation **is not**:

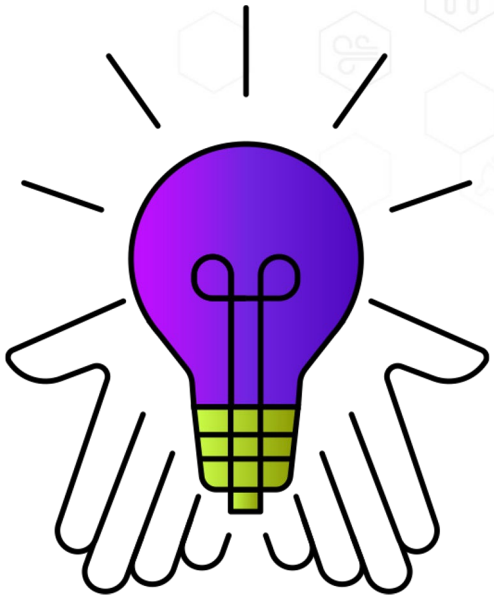
- Technology for technology's sake
- Putting new technologies on top of old technologies



What Digital Transformation is Really About

Digital Transformation **is**:

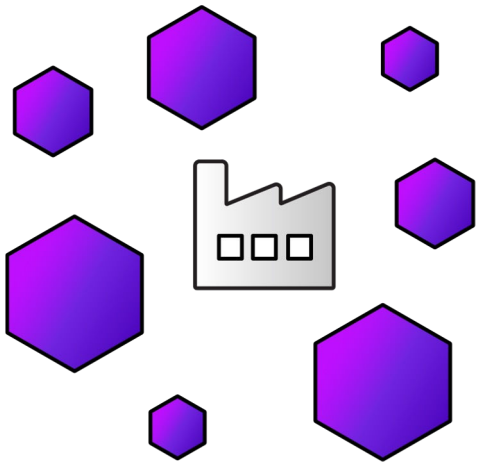
- A comprehensive shift in the way we do business
- About identifying areas of improvement, then making improvements in an intentional, methodical, and measurable way by leveraging modern technologies

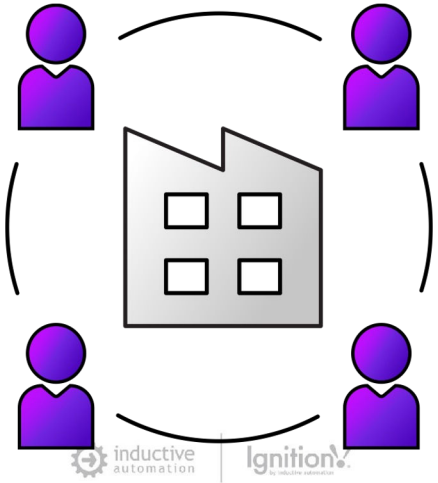


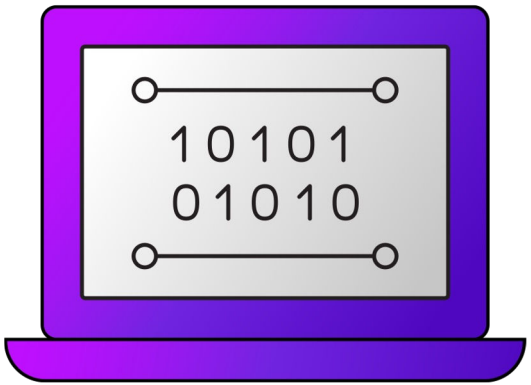
What Digital Transformation is Really About

3 key areas:

- Processes
- People
- Programs







What Digital Transformation is Really About

One of the biggest Digital Transformation challenges: How do you make the most of your data?

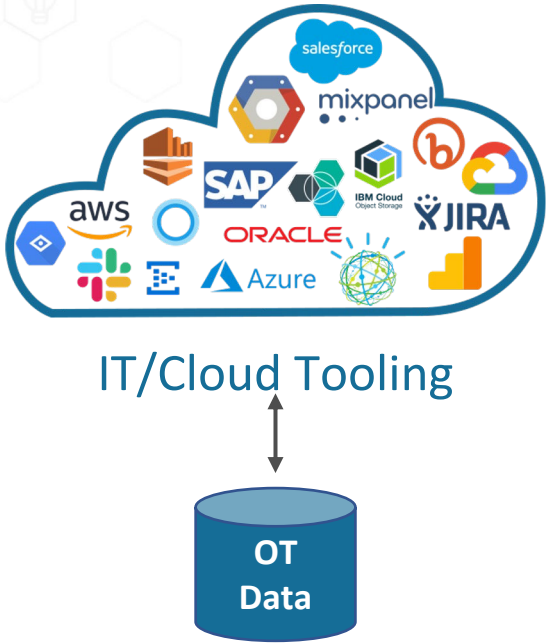
Data Problem: Stranded Data

Companies aren't getting the data they need to make better decisions:

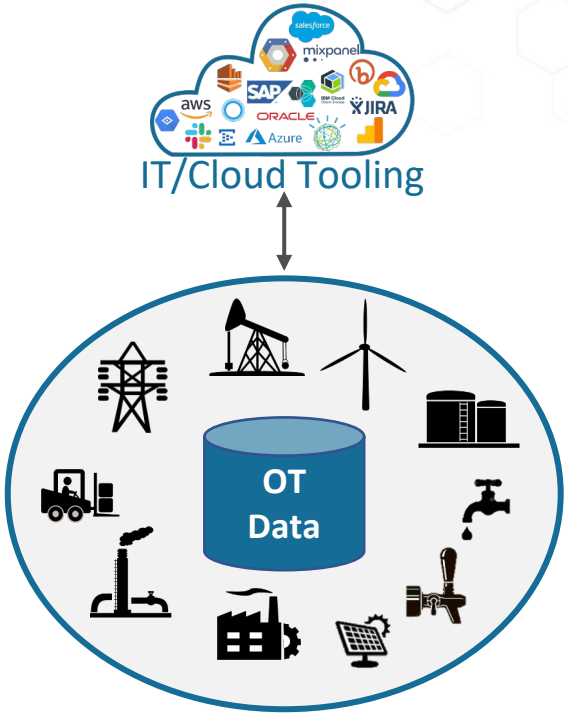
- 80% of data is stranded in the field
- Coupling devices with applications stops innovation
- Systems take too much time to set up

Data Problem: Proposition vs Reality

The Proposition (Looks Simple)



The Reality (It's Difficult)



Data Problem: OT Data vs IT Data

OT Data Consists of:

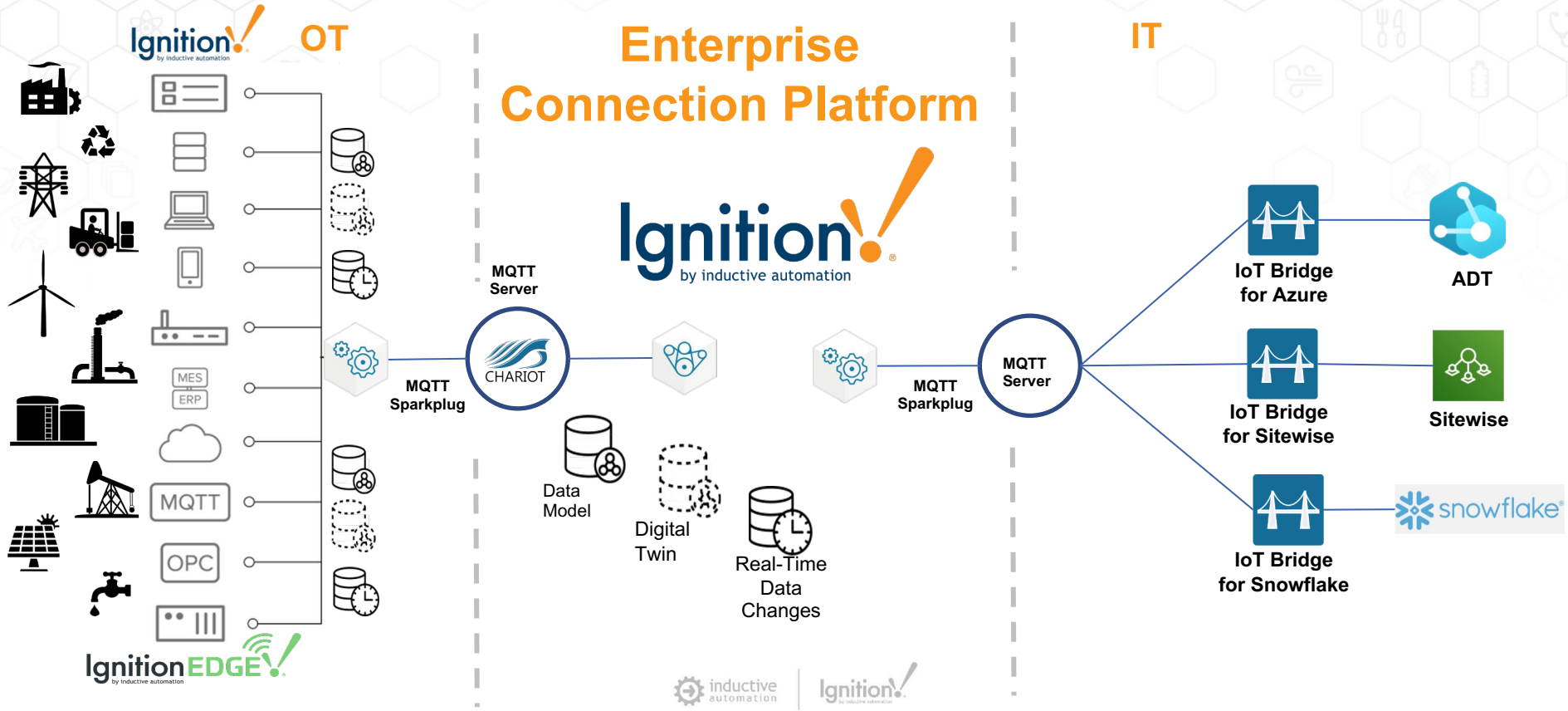
- Proprietary Protocols
- Multiple Data Formats
- No Contextual Information
- Designed for Operations
- Different Across Market Segments
- Poll/Response Date Retrieval
- Directly Coupled to Applications
- Isolated Networks

IT Data Needs:

- Data Objects/Modeling
- Standard Data Formats
- Contextual Information
- Decoupled to Enterprise
- Publish/Subscribe Methodology
- Easy to Integrate
- Secure

Ignition Brings OT and IT Together

Example: Applying a Unified Namespace



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Questions?